

Year.	Errors of Longitude (Hansen minus Observed.)		Year.	Errors of Longitude (Hansen minus Observed.)	
	Uncorrected.	Corrected.		Uncorrected.	Corrected.
1857	-1'86	-1'86	1872	+ 7'31	+ 0'10
1858	-1'98	-1'98	1873	+ 8'24	+ 0'20
1859	-1'80	-1'80	1874	+ 9'29	+ 0'56
1860	-2'90	-2'90	1875	+ 9'87	+ 0'36
1861	-2'19	-2'19	1876	+ 9'80	- 0'51
1862	-2'83	-2'83	1877	+ 9'23	-1'90
1863	-1'61	-1'61	1878	+ 8'22	-3'60
1864	+ 0'12	- 0'81	1879*	+ 9'63	-3'12
1865	+ 1'27	- 0'22	1880	+ 10'89	-2'77
1866	+ 2'14	- 0'22	1881	+ 10'51	-4'06
1867	+ 3'48	+ 0'36	1882†	+ 12'68	-2'51
1868	+ 4'12	+ 0'28	1883	+ 14'71	-1'50
1869	+ 4'28	- 0'35	1884	+ 14'65	-1'91
1870	+ 4'83	- 0'66	1885	+ 15'14	-1'87
1871	+ 6'96	+ 0'44	1886‡	+ 15'34	-2'53

Radcliffe Observatory, Oxford:
1887, January 4.

Mean Right Ascensions of *Polaris*, *Cephei 51* (*Hev.*), *δ Ursæ Minoris*, and *λ Ursæ Minoris* for the year 1887, from the Radcliffe Observations of the years 1880 to 1886. By E. J. Stone, M.A., F.R.S.

From the year 1880 to the year 1886 the azimuth errors of the Transit Circle at the Radcliffe Observatory have been based on the *Nautical Almanac* places of the stars *Polaris*, *Cephei 51* (*Hev.*), *δ Ursæ Minoris*, *λ Ursæ Minoris*, after the application of corrections kindly furnished by the Astronomer Royal from year to year. The azimuth errors thus found agree well *inter se*, except those found from *Polaris* and *Polaris S. P.*, which differ more than is desirable from each other and from the results found from observations of the other three stars. It has, therefore, been thought necessary to collect the results. It will be seen that the Right Ascensions of the Radcliffe Observations agree remarkably closely with the corrected *Nautical Almanac* places given by the Astronomer Royal for the three stars, *Cephei 51*, *δ Ursæ Min.*, and *λ Ursæ Min.*, but that the resulting Right Ascensions of *Polaris* agree much more closely with the tabular Right Ascensions of the *Berliner Jahrbuch*.

* All to 1879, Greenwich Observations.

† 1880 to 1882, Mean of Greenwich and Radcliffe.

‡ 1883 and since, Radcliffe only.

The resulting Right Ascensions for 1887 will be employed in the reductions of the Radcliffe Observations during the year 1887.

Annual Results reduced to 1887.

Year.	Mean R.A. from Radcliffe Observations reduced to 1887.	Number of Observations.	Adopted Proper Motion.
-------	--	-------------------------------	------------------------------

Polaris.

	h m s		s
1880	1 17 20.84	15	+ 0.1179
1881	21.55	24	
1882	21.75	67	
1883	21.18	62	
1884	21.92	52	
1885	21.68	83	
1886	21.72	49	

Cephei 51 (Hev.).

1880	6 47 16.38	9	- 0.0385
1881	16.42	31	
1882	16.39	24	
1883	16.56	27	
1884	16.44	37	
1885	16.43	21	
1886	16.75	21	

δ Ursæ Minoris.

1880	18 8 46.18	5	+ 0.0285
1881	45.66	25	
1882	45.71	21	
1883	45.75	20	
1884	46.01	30	
1885	45.93	17	
1886	45.97	28	

λ Ursæ Minoris.

1880	19 36 53.24	3	- 0.0500
1881	47.31	26	
1882	47.50	25	
1883	48.38	19	
1884	47.68	21	
1885	47.35	11	
1886	48.53	4	

Comparison of Mean Results with Tabular Right Ascensions.

Name of Star.	Mean of R.A. from Radcliffe Observations reduced to 1887.			Tabular R.A. from the <i>Nautical Almanac</i> for 1887.			Tabular R.A. from Greenwich Clock star list for 1887.			Tabular R.A. from <i>Bey-</i> <i>liner Jahrbuch</i> for 1887.		
	h	m	s	h	m	s	h	m	s	h	m	s
Polaris	1	17	21.60	1	17	19.63	1	17	20.00	1	17	21.73
Cephei 51 (Hev.)	6	47	16.48	6	47	16.60	6	47	16.57	6	47	16.96
δ Ursæ Minoris	18	8	45.86	18	8	46.00	18	8	46.00	18	8	45.98
λ Ursæ Minoris	19	36	47.82	19	36	46.88	19	36	47.72	19	36	48.00

Radcliffe Observatory, Oxford :
1887, January 13.

Note on the Application of Photography to the Determination of Stellar Parallax. By the Rev. Prof. Pritchard, D.D., F.R.S.

At the meeting of the Society in June last, I communicated the results of some preliminary trials with the view of ascertaining the applicability of photography to astronomical measurements of sufficient delicacy for the accurate determination of stellar parallax.

These results proving eminently satisfactory, the requisite operations for the determination of parallax commenced on May 26 of last year by taking photographs of the district round 61¹ and 61² *Cygni*, which star was selected on account of the unusually numerous examinations which had been applied to it by successive astronomers from the time of Bessel (1840) to the present date; my object being not so much to effect a re-determination of the parallax of this historical star as to obtain the means of comparing the photographic method with those other methods of micrometrical measurement heretofore directly applied to this end.

For the purpose in view, four faint stars, viz. :

- D.M. + 37 No. 4189 (a)
- D.M. + 38 „ 4336 (b)
- D.M. + 37 „ 4175 (c)
- D.M. + 38 „ 4348 (d)

were selected from others whose images were impressed on the photographic plates. The distances of each of these four stars (eight in all) were carefully measured from each of the two components of 61 *Cygni*, on plates taken on fifty nights, ending on Dec. 7, 1886. In general, four plates were exposed each night, so that some 200 plates have been measured in the course